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**WO 01/76577 A3**

(54) Title: UNIQUE COMPOSITIONS OF ZWITTERIONIC PHOSPHOLIPIDS AND BISPHOSPHONATES AND USE OF THE  
COMPOSITIONS AS BISPHOSPHATE DELIVERY SYSTEMS WITH REDUCED GI TOXICITY

(57) Abstract: Compositions and methods for treating osteoporosis using the compositions are disclosed where the compositions have reduced GI toxicity and improved bio-availability and include a bisphosphonate and zwitterionic phospholipid.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 01/11375

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61K31/66 A61K45/06 A61P19/10 // (A61K45/06, 31:685, 31:66)

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, BIOSIS, CHEM ABS Data, EMBASE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>N. VAN ROOIJEN, A. SANDERS: "Manipulation of Kupffer cells by liposome encapsulated clodronate and propamidine-synergistic and antagonistic effects of liposomal phospholipids and drugs" INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol. 162, no. 1-2, 1998, pages 51-58, XP001064839 page 51 page 54 page 56</p> <p>---</p> <p>-/-</p>	1

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	<p>WO 00 61111 A (ASTRAZENECA) 19 October 2000 (2000-10-19)</p> <p>claims 1,21,22,30,33,35,37,38 page 6, line 21-24 page 8, line 24,25 page 9, line 19-21 page 13, line 17-21</p> <p>-----</p>	<p>1-3,8, 14, 16-22, 25, 28-30, 33,36, 37,39</p>

**INTERNATIONAL SEARCH REPORT**

## Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0061111	A 19-10-2000	AU 4161900 A EP 1171097 A1 NO 20014895 A WO 0061111 A1	14-11-2000 16-01-2002 10-12-2001 19-10-2000